

**ABSTRACT**

A blood separation assembly comprises a blood processing chamber having a base including formed walls that define a separation channel. A centrifuge rotor is rotatable about a rotational axis. A latch assembly comprises a latch arm that is pivotally mounted on the centrifuge rotor. The latch arm can be moved between a chamber-retaining position engaging the blood processing chamber, to secure the blood processing chamber to the centrifuge rotor, and a chamber-releasing position free of engagement with the blood processing chamber, to enable removal of the blood processing chamber from the centrifuge rotor. The latch assembly also includes a pawl movable on the centrifuge rotor between a first position adjacent the latch arm and a second position spaced from the latch arm. The pawl includes a locking element that engages the latch arm when the latch arm is in the chamber-retaining position, to resist movement of the latch arm toward the chamber-releasing position. A spring biases the pawl toward the first position.